

Spreader Frame & Low Level Chair

Traditionally, quilts are created for family members and used as sleeping mattresses in warm weather or as covers during the cool, damp monsoon season. Quilting is the process of sewing two or more layers of fabric together to make a thicker padded material, usually to create a quilt or quilted garment. Typically, quilting is done with three layers: the top fabric or quilt top, batting or insulating material and backing material, but many different styles are adopted.

Many quilters are older women who can no longer work in the fields, but younger women also make quilts. Sometimes several women will work together to create a quilt. At other times they may work alone whenever they have a free moment during their long, labor-filled days. The stitches exhibit a distinctive rhythm that is part of the “visual signature” of the artist along with the colors, sizes, shapes, and designs of the cloth patches. Some women incorporate parts of garments uncut, like the neckline of a child’s blouse, or an old shirt with some of its buttons still attached. Others cut small square or rectangular patches of brightly colored cloth (*tikeli*) to place on top of other larger patches in contrasting colors. The final decorative step is to sew at each corner of the quilt one or more folded square patches that form a multi-layered triangle called *phula*, or “flower.” The process of quilting uses a needle and thread to join two or more layers of material to make a quilt. The quilter's hand or sewing machine passes the needle and thread through all layers and then brings the needle back up. The process is repeated across the entire area where quilting is wanted.

Quilting enterprise is very popular in the villages of tarai region because most of the residents of this area are the migrants from West Bengal. The women of this particular area are traditionally having expertise in this work. These families usually found involved in this activity and are prone to occupational health hazards due to attaining faulty/ill posture during quilting work. Therefore, for quilt making activity, a spreader frame and low level chair was developed. It helps in improvement of work posture. The use of spreader with low level chair avoids squatting posture as required in conventional method.

Advantages:

1. Improves the work posture through spreader frame with low level chair.
2. Energy expenditure, TCCW and PCW reduces in improved method over conventional method from 8.75 to 8.04 kJ/min., 1037.95 to 1008.64 beats and 103.79 to 100.86 beats respectively.
3. Overall rating of discomfort reduces significantly with the use of technology.
4. On an average, each one of the respondent involved in quilting were able to make 6-7 quilts/months depending upon the design they had to work on. It can be said that use of spreader frame increase the productivity of the work .
5. Avoids squatting posture which causes pain in calf muscles and lumbar back muscles.
6. It makes the working comfortable for long hours.
7. Convenient to carry from one place to another.